

RESIDUAL RIGHTING ARMS vs HEEL ANGLE

Fixed CG: LCG = 47.62a TCG = 0.40s VCG = 7.41

Origin	Degrees of		Displacement	Residual Arms		Flood Pt	
Depth	Trim	Heel	Weight (LT)	in Trim	in Heel	Area	Height
2.083	1.49a	12.85p	160.36	0.00	-4.427	0.00	
2.219	1.44a	7.85p	160.36	0.00	-3.286	-19.28	
2.298	1.40a	2.85p	160.36	0.00	-2.193	-32.96	
2.304	1.40a	2.15s	160.36	0.00	-1.283	-41.57	5.61 (10)
2.235	1.43a	7.15s	160.36	0.00	-0.561	-46.10	4.98 (10)
2.145	1.47a	10.81s	160.36	0.00	0.001	-47.14	4.51 (10)
2.106	1.48a	12.15s	160.36	0.00	0.220	-46.99	4.34 (10)
1.872	1.57a	17.15s	160.36	0.00	0.949	-44.06	3.71 (10)
1.426	1.78a	22.15s	160.32	0.00	1.295	-38.29	3.15 (10)
0.943	2.04a	26.22s	160.36	0.00	1.228	-33.06	2.73 (10)
0.821	2.11a	27.15s	160.36	0.00	1.186	-31.93	2.63 (10)
0.137	2.49a	32.15s	160.36	0.00	0.817	-26.79	2.11 (10)
-0.572	2.88a	37.15s	160.36	0.00	0.290	-23.96	1.57 (10)
-0.906	3.05a	39.50s	160.36	0.00	-0.001	-23.61	1.32 (10)
-0.977	3.09a	40.00s	160.36	0.00	-0.049	-23.62	1.26 (10)
-1.281	3.25a	42.15s	160.36	0.00	-0.332	-24.03	1.03 (10)
-1.985	3.60a	47.15s	160.36	0.00	-1.003	-27.34	0.48 (10)
-2.580	3.88a	51.45s	160.36	0.00	-1.572	-32.88	-0.00 (10)
-2.675	3.93a	52.15s	160.36	0.00	-1.655	-34.01	-0.08 (10)
-3.345	4.22a	57.15s	160.36	0.00	-2.317	-43.93	-0.63 (10)
-3.987	4.49a	62.15s	160.36	0.00	-2.925	-57.06	-1.18 (10)
-4.595	4.71a	67.15s	160.36	0.00	-3.555	-73.25	-1.72 (10)
-5.162	4.89a	72.15s	160.36	0.00	-4.071	-92.37	-2.25 (10)
-5.684	5.03a	77.15s	160.36	0.00	-4.609	-114.06	-2.76 (10)

Distances in FEET.-----Specific Gravity = 1.025.-----Area in Ft-Deg.

Note: The Center of Gravity shown above is for the Fixed Weight of 154.83 LT. As the tank load centers shift with heel and trim, the total Center of Gravity varies. The righting arms shown above include the effect of the C.G. variation.

Note: The Residual Righting Arms shown above are in excess of the wind heeling arms derived from the projected wind plane at each heel angle, using the given wind pressure from port.

Critical Point-----		LCP	TCP	VCP
(10) DCKD	FLOOD	42.00a	7.00s	9.21
LIM-----	NAVSEA079 SEVERE WIND AND ROLL-----	Min/Max-----		Attained
(1) Absolute Angle at Equilibrium	<	14.00	deg	10.81 P
(2) Rise in Abs. RA from Equilibrium to MaxRA	>	66.7	%	112.3 P
(3) Residual Area Ratio from Roll to Flood	>	1.400		0.303 F
(4) Residual Area Ratio from Roll to RAzero	>	1.400		0.499 F
(5) Residual Area Ratio from Roll to abs 40 deg	>	1.400		0.499 F

